

**ARIZONA COLORADO RIVER SHORTAGE  
SHARING WORKSHOP**  
**August 26, 2005**

**Date:** September 1, 2005

**Subject:** Report from Workshop Number 11, August 26, 2005

**Summary:** The agenda for the August 26, 2005 shortage sharing workshop included: 1) review of the shortage alternatives discussion and information requests for the September 21<sup>st</sup> decision meeting, 2) briefing on the Arizona Water Banking Authority (AWBA) 10-year plan for M&I and Nevada water storage, 3) briefing on the basin states technical workgroup process, 4) briefing on the Basin States meeting, 4) review and discussion of the Basin States letter to the Secretary and 5) discussion of Arizona shortage sharing considerations for the August 21<sup>st</sup> meeting. The purpose of the shortage sharing workshops is to develop a stakeholder recommendation to the Director regarding the appropriate volume of shortage reductions for Arizona and a recommendation regarding how shortage will be shared between CAP and post-1968 Colorado River water users.

#### 1. Summary of Shortage Alternatives and Information Requests

The Arizona shortage criteria development process is driven by Reclamation's parallel process. Originally the Arizona participants had established a meeting schedule to produce a recommendation by August 31<sup>st</sup>, the due date for Reclamation's pre-scoping process. Reclamation has now decided upon an Environmental Impact Statement process, with alternative scoping scheduled to begin in September or October and end in February. In response, the Basin States have established an internal deadline to craft a preferred alternative by February 1<sup>st</sup>. The Arizona workgroup will develop a recommendation no later than the end of November. Other negotiations and agreements may be needed before shortage criteria are finalized, including an agreement with Nevada and further discussions of shortage sharing with Mexico.

The Arizona shortage recommendation is intended to describe shortage operations under an average shortage situation that is likely to occur in the future. The Arizona stakeholders have developed seven different shortage alternatives for analysis. Three alternatives are probability/volume-based reductions; four alternatives describe gradually increasing water delivery reductions triggered at specified elevations in Lake Mead.

New model runs will be posted to the AWBA website by September 16<sup>th</sup>. Information requests include modeling a tiered 300/500/800 KAF reduction beginning at Mead elevation 1075, a 25% and 50% trace for total fourth priority water deliveries for five scenarios (four tiered plus 80P1050/500KAF), cumulative impact by sector for 50-years to evaluate the effect of shortage reductions to the Water Bank, and a time series of shortage reduction impacts by user group for 2016, 2024, 2031 and 2035.

## 2. Arizona Water Banking Authority 10-Year Plan

The AWBA 10-year plan includes an aggressive schedule for storing water for Nevada. The Maricopa County storage schedule is less aggressive. The Bank will likely continue to store water for Maricopa County after 2016. Maricopa County has sufficient revenue generated with the 4-cent tax for banking purposes. There is sufficient facility capacity available to implement the 10-year plan. The numbers used in the 10-year plan are optimistic because CAP pricing will probably increase over the next few years which will impact AWBA's ability to purchase water for storage. The Bank has sufficient credits in storage to cover M&I shortages during the interim period. The projections do not include storage for Indian firming.

## 3. Basin States Technical Workgroup

The technical group includes one member from each of the Basin States. The focus of the workgroup is to protect Powell and to delay the onset and minimize the extent and duration of shortages in the Lower Basin. The group would like to analyze the use of trigger-based scenarios as opposed to probability based even though these may include additional risk for the Upper Basin. The group is analyzing alternate operational scenarios for Powell and Mead over the interim period. There is a proposal from the Upper Basin states that incorporates protection for Powell without consideration of impacts to Mead. Current Lake Powell operations are very beneficial to the Upper Basin.

## 4. Basin States Meeting

Reclamation scoping for the shortage criteria alternatives is expected to begin in September/October and close at the end of February 2006. The Basin States have set a deadline to reach agreement on a recommendation by February 1<sup>st</sup>. The states have established a number of objectives that must be met in order for conjunctive management operations to work. Further investigation of augmentation, weather modification, desalination, regulatory storage, operation of the Yuma Desalination Plant and management at the lower end of the system to reduce over deliveries to Mexico are required.

The states are preparing a letter to the Secretary responding to the request for comments regarding the development of shortage criteria. The letter contains two competing objectives; maximize the protection afforded to the Upper Basin by Lake Powell and delay the onset and minimize the extent and duration of shortages in the Lower Basin. Augmentation strategies and coordinated management go hand in hand, Reclamation should not consider these strategies separately. Shortage criteria should protect Southern Nevada Water Authority's intakes in Lake Mead; this does not preclude Arizona from developing a shortage implementation recommendation with triggers at any particular elevation in Lake Mead. There is still disagreement between the states with regard to interpretation of the Decree and augmentation with non-Colorado River groundwater. Nevada plans to pump groundwater from a non-tributary groundwater basin to augment the Virgin River.

## 5. Shortage Sharing

ADWR explained a draft proposal for shortage sharing between the CAP and fourth priority Colorado River water users. The draft proposal suggests shortage reductions in the following order and amounts:

- Sixth priority (surplus) contractors
- CAP diversions for AWBA and CAGRD replenishment reserve
- Fifth priority (unused entitlement) contractors
- CAGRD annual obligation and incentive recharge customers
- Mainstem fourth priority contractors and CAP agricultural pool customers reduced by 10% of use
- Remaining agricultural pool
- CAP NIA pool
- CAP Indian contractors and M&I customers prorated reduction based on Arizona Water Rights Settlement formula.

Fourth priority Colorado River contractors have discussed the possibility of augmenting their water supplies during shortage by purchasing options with the higher priority Colorado River agricultural districts. Because of the small total volume of reduction, under any proposed shortage strategy, the higher priority agricultural users have not expressed much interest in this arrangement. An agreement may be possible as part of a larger volume agreement with other users.

CAP provided a summary of how shortage reductions could affect fixed O&M costs for M&I users. CAP fixed O&M costs are determined annually by dividing total cost by total deliveries; if deliveries are reduced the cost per acre-foot of M&I water increases.